



**Stroke**

**Quality Enhancement Research Initiative**

## **Stroke**

Stroke is the third leading cause of death in the United States, accounting for more than 1 of every 15 deaths in the United States. More than 700,000 persons experience a new or recurrent stroke each year, resulting in an approximated cost of \$58.6 billion. On average, every 45 seconds an American has a stroke, every 3 minutes someone dies of stroke in this country, and 15%-30% of stroke survivors have serious, long-term disability.

The Veterans Health Administration (VHA) of the Department of Veterans Affairs (VA) estimates that 15,000 veterans are hospitalized for stroke each year with a new stroke costing an estimated \$111 million for acute inpatient care, \$75 million for post acute inpatient care, and \$88 million for follow-up care over 6 months post-stroke.

The mission of the Stroke Quality Enhancement Research Initiative (Stroke QUERI) is to employ the QUERI process (see back page) to reduce stroke risk and maximize the functional status and quality of life of veterans with stroke by systematically implementing clinical research findings and evidence-based guidelines into routine clinical practice.

The Stroke QUERI was established in March 2004 with leadership from Dr. Pamela Duncan, PhD, PT (Research Coordinator) and Dr. Linda S. Williams, MD (Clinical Coordinator). The Stroke QUERI has four major goals : (1) To improve overall compliance with

the Department of Veteran Affairs and the Department of Defense (VA/DoD) clinical practice guidelines for the management of stroke rehabilitation; (2) To ensure that a plan for rehabilitation is considered for all stroke patients; (3) To reduce the risk of stroke recurrence by assuring appropriate anticoagulation of stroke patients with atrial fibrillation; and (4) To reduce the physical, emotional, and social burden of depression after stroke.

## **Stroke QUERI and Translation 2004**

In April 2003, the VA/DoD released new guidelines for the management of post-acute stroke and stroke rehabilitation. The guidelines were developed to assist facilities to implement processes of care that are evidence-based and designed to achieve maximum functionality and independence, and improve patient/family quality of life. These guidelines were developed using evidence-based methodology that integrated the best evidence with clinical expertise. There were 13 recommendations with the highest evidence. At this time, the VHA National Clinical Practice

Guidelines Council (NCPGC) has given the guidelines the highest level of endorsement for implementation system-wide. The VHA EES will roll out a system-wide education program directed at guideline implementation in February 2004.

The most important goal of the VA/DoD Clinical Practice Guideline for the Management of Stroke Rehabilitation is to provide a scientific evidence-base for practice interventions and evaluations. Implementation of the guidelines should provide facilities a structured approach to post-stroke care and assure that veterans who suffer a stroke will have access to comparable care, regardless of geographic location. The guidelines will serve as a guide that clinicians can use to determine best interventions and timing of care for their patients, better stratify stroke patients, reduce readmission, and optimize healthcare utilization. If followed, the guideline is expected to have impact on multiple measurable patient outcome domains. A long-range goal of the Stroke QUERI is to assess if improvement in access to rehabilitation improves patient outcomes.

## **The Stroke QUERI Executive Committee**

Each QUERI Executive Committee is co-chaired by a research expert and a clinician. Research co-chair for Stroke QUERI is **Pamela W. Duncan, PhD**, and the Clinical co-chair is **Linda Williams, MD**. Stroke QUERI's Executive Committee includes other experts in the field of stroke: Lawrence M. Brass, MD (Chair), Barbara Sigford, Clifford Marshall, John Booss, Patricia Ryan, Ellen Magnis, Peter Woodbridge, George Mensah, and Bonny Collins (tentative).

### ***Additional Stroke QUERI Findings and New Projects***

Here are a few of the exciting new areas of Stroke QUERI research:

(1) The discrepancy between current and recommended practice results for anticoagulation of patients with atrial fibrillation may be attributable to a number of factors, among them the demanding nature of warfarin dosing and monitoring. Due to the complexities of warfarin dosing and monitoring, barriers to appropriate anticoagulation are multifaceted and may include organizational, provider, and patient factors. At this time we do not have a clear picture of the patterns of post-stroke anticoagulation use in VA or the quality of anticoagulation use (as measured by time spent in target range for INR). The Stroke QUERI will measure and diagnose quality and performance gaps in anticoagulation of veterans with atrial fibrillation and stroke. Specifically we will describe existing practice patterns in VA and variations from best practices for anticoagulation.

(2) Several community-based studies have demonstrated that Post Stroke Depression (PSD) is under-diagnosed and under-

treated, but the patterns of PSD diagnosis and treatment in the VA are largely unknown. The Stroke QUERI will facilitate the measurement and diagnosis of quality and performance gaps for detecting and managing PSD. Led by Dr. Linda Williams, a group of Stroke QUERI investigators from Veterans Integrated Service Networks (VISN) 8 and 11 recently received funding for an Implementation Planning Grant "Implementing Evidence in the Detection and Treatment of Post-stroke Depression." The eventual goal of this project is to extend the implementation of the existing primary care depression performance measure to improve the screening, diagnosis, and appropriate treatment of depression in veterans with recent stroke.

(3) A long-term goal of the Stroke QUERI will be to expand the scope of the research portfolio to include other secondary prevention measures and early phases of stroke care.

The Stroke QUERI encourages investigators working in the field of stroke to contact either the Research or Clinical Coordinators of the new Center.

### **Quality Enhancement Research Initiative**

QUERI currently focuses on nine conditions that are prevalent and high-risk among veteran patients: Chronic Heart Failure, Colorectal Cancer, Diabetes, HIV/AIDS, Ischemic Heart Disease, Mental Health, Spinal Cord Injury, Stroke, and Substance Abuse.

### **The QUERI Process**

The QUERI process includes six steps:

1. identify high-risk/high volume diseases or problems;
2. identify best practices;
3. define existing practice patterns and outcomes across VA and current variation from best practices;
4. identify and implement interventions to promote best practices;
5. document that best practices improve outcomes; and
6. document that outcomes are associated with improved health-related quality of life and systems improvements.

### ***Contact for general QUERI Information***

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VA's Research and Development QUERI Web Site: <http://www.hsrd.research.va.gov/queri/>

Stroke QUERI Direct Web Link: <http://www.va.gov/stroke-queri>